BOOK REVIEW

ON

„OPERATIONS MANAGEMENT RESEARCH AND CELLULAR MANUFACTURING SYSTEMS: INNOVATIVE METHODS AND APPROACHES“

FORMAL ATTRIBUTES: *Hardcover, 440 pages, Publisher: IGI Global (USA), 1 edition (October 31, 2011), Language: English, ISBN-10: 1613500475, ISBN-13: 978-1613500477.*

The book is edited by **Vladimir Modrak** who is Professor of Manufacturing Technology at Technical University of Kosice (Slovakia) and Dr. R. **Sudhakara Pandian** from Kalasalingam University (India). The book consists of 20 chapters and is written by 44 authors from 13 countries.

Its authors were apparently motivated by the fact that traditional manufacturing concepts with long manufacturing lead times and extremely high work-in-process inventories are no longer able to satisfy current requirements of customers.

Accordingly, their focus is on innovative methods and approaches towards the development and implementation of lean manufacturing layouts to improve material flow and material. Moreover, chapter 1 by Modrak and Semanco includes a motivation for the topic, which leads to the review of the modern cell formation approaches. The rest of the book covers the following subjects:

- Cluster Analysis for Cell Formation
- Connected and Disconnected Cellular Systems
- Flexible Manufacturing Cells
- Flow Stop Scheduling Problems
- Genetic and Hybrid Algorithms in Cell Formation
- Graph Theory and Design of Manufacturing Cells
- Lean Thinking Based Investment Planning
- Non-Traditional Optimization Algorithms
- Operator Assignment Decisions
- Petri Net Models

It has been a good choice to prioritize methods of operational research for decision making in various functional areas of manufacturing management. Thanks to this approach the book has become one of the most complete comprehensive literature resources on the methodological aspects of cellular manufacturing systems.

This book, in spite of its academic nature, has a potential to generate interest among industrial engineers and production managers which are concerned in implementing cellular manufacturing techniques in their plants. In this respect, it is possible, for example, to refer to the case study "Multi-Modal Assembly-Support System for Cellular Manufacturing" by Feng Duan, Jeffrey Too Chuan Tan, Ryu Kato, and Tamio Arai.

The comprehensive list of references that is accompanying every chapter confirms the academic usefulness of this book. Additionally, this book is providing further theoretical understanding the subject with more fruitful ideas to academic researchers and managers of organizations.